SEQUENCE LISTING

-1-

<110> O'Hara Jr., Richard Nagelin, Ann Marie

<120> AGENTS THAT SPECIFICALLY BLOCK
 CD28-MEDIATED SIGNALING AND USES THEREFOR

<130> GNN-028

<150> 60/269,756 <151> 2001-02-16

<160> 2

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 3803

<212> DNA

<213> Homo sapiens

<400> 1 taaagtcatc aaaacaacgt tatatcctgt gtgaaatgct gcagtcagga tgccttgtgg 60 ttgagtgcct tgatcatgtg ccctaagggg atggtggcgg tggtggtggc cgtggatgac 120 ggagactete aggeettgge aggtgegtet tteagtteee eteacactte gggtteeteg 180 gggaggaggg gctggaaccc tagcccatcg tcaggacaaa gatgctcagg ctgctcttgg 240 ctctcaactt attcccttca attcaagtaa caggaaacaa gattttggtg aagcagtcgc 300 ccatgettgt agegtacgac aatgeggtea accttagetg caagtattee tacaatetet 360 tetcaaggga gitcegggca teecitcaca aaggacigga tagigetgtg gaagtetgtg 420 ttgtatatgg gaattactcc cagcagettc aggtttactc aaaaacgggg ttcaactgtg 480 atgggaaatt gggcaatgaa tcagtgacat tctacctcca gaatttgtat gttaaccaaa 540 cagatattta cttctgcaaa attgaagtta tgtatcctcc tccttaccta gacaatgaga 600 agagcaatgg aaccattatc catgtgaaag ggaaacacct ttgtccaagt cccctatttc 660 coggacette taagecettt tgggtgetgg tggtggttgg tggagteetg gettgetata 720 gettgetagt aacagtggce titattattt tetgggtgag gagtaagagg ageaggetee 780 tgcacagtga ctacatgaac atgactcccc gccgccccgg gcccacccgc aagcattacc 840 agccctatge eccaecaege gaettegeag ectategete etgacaegga egeetateea 900 gaagccagcc ggctggcagc ccccatctgc tcaatatcac tgctctggat aggaaatgac 960 cgccatctcc agccggccac ctcaggcccc tgttgggcca ccaatgccaa tttttctcga 1020 gtgactagac caaatatcaa gatcattttg agactctgaa atgaagtaaa agagatttcc 1080 tgtgacaggc caagtettac agtgecatgg eccacattee aacttaceat gtaettagtg 1140 acttgactga gaagttaggg tagaaaacaa aaagggagtg gattctggga gcctcttccc 1200 tttctcactc acctgcacat ctcagtcaag caaagtgtgg tatccacaga cattttagtt 1260 gcagaagaaa ggctaggaaa tcattccttt tggttaaatg ggtgtttaat cttttggtta 1320 gtgggttaaa cggggtaagt tagagtaggg ggagggatag gaagacatat ttaaaaacca 1380 ttaaaacact gtctcccact catgaaatga gccacgtagt tcctatttaa tgctgttttc 1440 ctttagttta gaaatacata gacattgtct tttatgaatt ctgatcatat ttagtcattt 1500 tgaccaaatg agggatttgg tcaaatgagg gattccctca aagcaatatc aggtaaacca 1560 agttgctttc ctcactccct gtcatgagac ttcagtgtta atgttcacaa tatactttcg 1620 aaagaataaa atagttotoo tacatgaaga aagaatatgt caggaaataa ggtcacttta 1680 tgtcaaaatt atttgagtac tatgggacct ggcgcagtgg ctcatgcttg taatcccagc 1740 actttgggag gccgaggtgg gcagatcact tgagatcagg accagcctgg tcaagatggt 1800 gaaactccgt ctgtactaaa aatacaaaat ttagcttggc ctggtggcag gcacctgtaa 1860 teccagetge ccaggagget gaggeatgag aategettga acctggcagg cggaggttge 1920 agtgagecga gatagtgeca cageteteca geetgggega cagagtgaga etecatetea 1980 aacaacaaca acaacaacaa caacaacaac aaaccacaaa attatttgag tactgtgaag 2040 -2-

```
gattatttgt ctaacagttc attccaatca gaccaggtag gagctttcct gtttcatatg 2100
tttcagggtt gcacagttgg tctctttaat gtcggtgtgg agatccaaag tgggttgtgg 2160
aaagagcgtc cataggagaa gtgagaatac tgtgaaaagg gatgttagca ttcattagag 2220
tatgaggatg agtcccaaga aggttctttg gaaggaggac gaatagaatg gagtaatgaa 2280
attettgeca tgtgetgagg agatagecag cattaggtga caatetteca gaagtggtea 2340
ggcagaaggt gccctggtga gagctccttt acagggactt tatgtggttt agggctcaga 2400
gctccaaaac tctgggctca gctgctcctg taccttggag gtccattcac atgggaaagt 2460
attttggaat gtgtcttttg aagagagcat cagagttctt aagggactgg gtaaggcctg 2520
accetgaaat gaccatggat atttttetae etacagtttg agteaactag aatatgeetg 2580
gggacettga agaatgeeet teagtggeee teaceatttg tteatgette agttaattea 2640
qqtqttqaaq qaqcttaqqt tttaqagqca cgtaqacttg gttcaagtct cgttagtagt 2700
tgaatageet caggeaagte actgeecace taagatgatg gttetteaae tataaatgga 2760
qataatqqtt acaaatqtct cttcctataq tataatctcc ataaqqqcat ggcccaaqtc 2820
tgtctttgac tctgcctatc cctgacgttt agtagcatgc ccgacataca atgttagcta 2880
ttqqtattat tqccatataq ataaattatq tataaaaatt aaactqqqca ataqcctaaq 2940
aaqqqqqqaa tattqtaaca caaatttaaa cccactacgc agggatgagg tgctataata 3000
tgaggacctt ttaacttcca tcattttcct gtttcttgaa atagtttatc ttgtaatgaa 3060
atataaggca cctcccactt ttatgtatag aaagaggtct tttaattttt ttttaatgtg 3120
agaaggaagg gaggagtagg aatcttgaga ttccatatcg aaaatactgt actttggttg 3180
atttttaagt gggcttccat tccatggatt taatcagtcc caagaagatc aaactcagca 3240
gtacttgggt gctgaagaac tgttggattt accctggcac gtgtgccact tgcccagctt 3300
cttgggcaca cagagttctt caatccaagt tatcagattg tatttgaaaa tgacagagct 3360
qqaqaqtttt ttgaaatgqc aqtqqcaaat aaataaatac tttttttaa atggaaagac 3420
ttgatctatg gtaataaatg attttgtttt ctgactggaa aaataggcct actaaagatg 3480
aatcacactt gagatgtttc ttactcactc tgcacagaaa caaagaagaa atgttataca 3540
gggaagtccg ttttcactat tagtatgaac caagaaatgg ttcaaaaaca gtggtaggag 3600
caatgctttc atagtttcag atatggtagt tatgaagaaa acaatgtcat ttgctgctat 3660
tattgtaaga gtcttataat taatggtact cctataattt ttgattgtga gctcacctat 3720
ttgggttaag catgccaatt taaagagacc aagtgtatgt acattatgtt ctacatattc 3780
agtgataaaa ttactaaact act
<210> 2
<211> 219
<212> PRT
<213> Homo sapiens
<400> 2
Met Leu Arg Leu Leu Ala Leu Asn Leu Phe Pro Ser Ile Gln Val
                                    10
Thr Gly Asn Lys Ile Leu Val Lys Gln Ser Pro Met Leu Val Ala Tyr
                                25
Asp Asn Ala Val Asn Leu Ser Cys Lys Tyr Ser Tyr Asn Leu Phe Ser
Arg Glu Phe Arg Ala Ser Leu His Lys Gly Leu Asp Ser Ala Val Glu
Val Cys Val Val Tyr Gly Asn Tyr Ser Gln Gln Leu Gln Val Tyr Ser
Lys Thr Gly Phe Asn Cys Asp Gly Lys Leu Gly Asn Glu Ser Val Thr
Phe Tyr Leu Gln Asn Leu Tyr Val Asn Gln Thr Asp Ile Tyr Phe Cys
            100
                                105
                                                    110
Lys Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys Ser
                            120
Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser Pro
                        135
                                            140
Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Gly
                    150
                                        155
Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile
```

170

165

 Phe
 Trp
 Val
 Arg
 Ser
 Lys
 Arg
 Ser
 Arg
 Leu
 Leu
 His
 Ser
 Asp
 Tyr
 Met

 Asn
 Met
 Thr
 Pro
 Arg
 Arg
 Pro
 Gly
 Pro
 Thr
 Arg
 Lys
 His
 Tyr
 Gln
 Pro

 Tyr
 Ala
 Pro
 Pro
 Arg
 Arg
 Pro
 Arg
 Ser
 Fr
 Fr